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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,017	06/25/2001	Khoi Hoang	60595-300901	2626

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EXAMINER

WILLETT, STEPHAN F

ART UNIT	PAPER NUMBER
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2141

DATE MAILED: 05/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/892,017	<b>Applicant(s)</b> HOANG, KHOI	
	<b>Examiner</b> Stephan F Willett	<b>Art Unit</b> 2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 3-7, 14, 17-29 and 32-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 8-13, 15, 16, 30 and 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4, 6-12</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restriction*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-2, 8-13, 15-16, 30-31 drawn to creating a scheduling matrix and EPG, are classified in class 709, subclass 231.
  - II. Claims 7, 3-6, 14, 17-19, 21-23, 27-29, 32-35, drawn to generating a delivery matrix and determining bandwidth for said matrix, are classified in class 703, subclass 234.
  - III. Claims 20, 24, drawn to the details of creating a delivery matrix, are classified in class 709, subclass 236.
  - IV. Claims 25-26, drawn to creating a delivery matrix with a minimum of idle time, are classified in class 709, subclass 233.
2. The inventions are distinct, each from the other because:

The claims in Group I involve steps to create a matrix with an EPG, while the claims in Group II specifically involve determining bandwidth for a matrix, the claims in Group III involve specific details to create a matrix, and the claims in Group IV involve creating a matrix with a minimum of idle time, which is classified in a different subclass from Groups I - III.
3. Inventions I-IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as to create a matrix

Art Unit: 2141

with an EPG. In the instant case, invention II has separate utility such as to alter bandwidth based on a matrix. In the instant case, invention III has separate utility such as to specific details in how to create a matrix. In the instant case, invention IV has separate utility such as to create a matrix with minimum idle time. See MPEP § 806.05(d).

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. Because these inventions are distinct for the reasons given above and the searches required for Group I is not required for Groups II or IV, restriction for examination purposes as indicated is proper.

6. Claims 3-4, 6, 14, 17-19, 21-23, 27-29, 32-35 link(s) inventions I- IV. The restriction requirement between the linked inventions is subject to the nonallowance of the linking claim(s), claims 3-4, 6, 14, 17-19, 21-23, 27-29, 32-35. Upon the allowance of the linking claim(s), the restriction requirement as to the linked inventions shall be withdrawn and any claim(s) depending from or otherwise including all the limitations of the allowable linking claim(s) will be entitled to examination in the instant application. Applicant(s) are advised that if any such claim(s) depending from or including all the limitations of the allowable linking claim(s) is/are presented in a continuation or divisional application, the claims of the continuation or divisional application may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Art Unit: 2141

7. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

8. Applicant's election with traverse of claims 1-2, 5, 8-13, 15-16, 30-31 by Tamiz Khan by telephone on May 5, 2004 is acknowledged.

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 15 recites the limitation "said second channel" instead of a second channel. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U. S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claim(s) 1-2, 8-13, are rejected under 35 U.S.C. 102(e) as being anticipated by Mills et al. with patent Number 6,055,560.
3. Regarding claim(s) 1, 8, Mills teaches broadcasting video, col. 7, lines 1-2. Mills teaches a delivery sequence for broadcast, col. 11, line 11-14; col. 3, lines 27-29, 58-59; col. 9, lines 27-35 and col. 14, lines 19-20, 28, 33-34 and 48-51. Mills teaches on-demand data delivery that is non-client specific, col. 5, lines 5-8. Mills teaches the amount of bandwidth, col. 3, lines 27-29 to enable control of the STB "independent of the number of subscribers", col. 4, lines 2-3. Mills teaches broadcasting and implementing an EPG via a set top box, col. 11, lines 22-27; col. 15, lines 26-27.
4. Regarding claim 2, Mills teaches a matrix for sequencing data blocks of a data file, col. 8, lines 2-5 and 26-27 within one time slot as "queue timer interval", col. 3, lines 59-60.
5. Regarding claim 9, Mills teaches decoding, decompressing, assembling and storing data blocks, col. 4, lines 14-16; col. 9, lines 14-15 as selected by the user, col. 10, line 67.
6. Regarding claim 10, Mills teaches output to a television, col. 15, lines 47-48.
7. Regarding claim 11, Mills teaches output to a monitor or terminal, col. 4, line 35.
8. Regarding claim 12, Mills teaches output to a television, col. 9, line 49.
9. Regarding claim 13, Mills teaches output to a computer, col. 2, line 10.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior

Art Unit: 2141

art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills et al. with patent Number 6,055,560 in view of Krause et al. with Patent Number 5,926,205.

12. Regarding claim(s) 15, Mills teaches broadcasting video, col. 7, lines 1-2. Mills teaches a delivery sequence for broadcast, col. 11, line 11-14; col. 3, lines 27-29, 58-59; col. 9, lines 27-35 and col. 14, lines 19-20, 28, 33-34 and 48-51. Mills teaches on-demand data delivery that is non-client specific, col. 5, lines 5-8. Mills teaches the amount of bandwidth, col. 3, lines 27-29 to enable control of the STB "independent of the number of subscribers", col. 4, lines 2-3. Mills teaches broadcasting and implementing an EPG via a set top box, col. 11, lines 22-27; col. 15, lines 26-27. Mills teaches the invention in the above claim(s) except for explicitly teaching transmitting over a 2<sup>nd</sup> channel. In that Mills operates to provide on-demand video, the artisan would have looked to the scheduling arts for details of implementing video resourcing. In that art, Krause, a related network video scheduler, teaches "multiple overlapping presentations of the same video program", col. 5, lines 55-56 in order to provide on-demand video. Krause specifically teaches second channels as "subchannel", col. 6, line 61; col. 14, lines 30-31, 35-36, 42-43. Further, Krause suggests that "a video program is typically organized as an ordered sequence of scenes or frames", col. 6, lines 10-11 which will result from implementing his scheduling. The motivation to incorporate combined channels insures that data can be supplied on demand. Thus, it would have been obvious to one of ordinary skill in the art to incorporate the channels as taught in Krause into the scheduling system described in the Mills patent because Mills operates with scheduled matrix type data and Krause suggests that optimization can be

obtained when combining matrices with channels to timely achieve the redundant programs.

Therefore, by the above rational, the above claim(s) are rejected.

13. Regarding claim 16, Mills teaches a matrix for sequencing data blocks of a data file, col. 8, lines 2-5 and 26-27 within one time slot as “queue timer interval”, col. 3, lines 59-60.

14. Claims 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills et al. with patent Number 6,055,560 in view of Krause et al. with Patent Number 5,926,205.

Regarding claim(s) 30, Mills teaches broadcasting video, col. 7, lines 1-2. Mills teaches a delivery sequence for broadcast, col. 11, line 11-14; col. 3, lines 27-29, 58-59; col. 9, lines 27-35 and col. 14, lines 19-20, 28, 33-34 and 48-51. Mills teaches on-demand data delivery that is non-client specific, col. 5, lines 5-8. Mills teaches the amount of bandwidth, col. 3, lines 27-29 to enable control of the STB “independent of the number of subscribers”, col. 4, lines 2-3.

Mills teaches broadcasting and implementing an EPG via a set top box, col. 11, lines 22-27; col. 15, lines 26-27. Mills teaches the invention in the above claim(s) except for explicitly teaching optimizing bandwidth. In that Mills operates to provide on-demand video, the artisan would have looked to the scheduling arts for details of implementing video resourcing. In that art, Krause, a related network video scheduler, teaches “multiple overlapping presentations of the same video program”, col. 5, lines 55-56 in order to provide on-demand video. Krause specifically teaches “this process continues until the resulting compressed data stream falls within the requisite bandwidth”, col. 11, lines 51-55 or col. 12, lines 17-23 . Further, Krause suggests that “ a video program is typically organized as an ordered sequence of scenes or frames”, col. 6, lines 10-11 which will result from implementing his scheduling. The motivation to incorporate bandwidth optimization insures that data can be supplied on demand.



Art Unit: 2141

Thus, it would have been obvious to one of ordinary skill in the art to incorporate the optimized bandwidth as taught in Krause into the scheduling system described in the Mills patent because Mills operates with scheduled matrix type data and Krause suggests that optimization can be obtained when combining matrices with legacy bandwidth optimization techniques to timely achieve the redundant programs. Therefore, by the above rational, the above claim(s) are rejected.

15. Regarding claim 31, Mills teaches a matrix for sequencing data blocks of a data file, col. 8, lines 2-5 and 26-27 within one time slot as "queue timer interval", col. 3, lines 59-60.

### *Conclusion*

16. Prior art made of record and not relied upon is considered pertinent to applicant's disclosure is disclosed in the Notice of References Cited. A close review of the Hoang reference with Patent Number 6,557,030 at col. 13, lines 26-27 is suggested. The other references cited teach numerous other ways to implement replicated real time video on demand, thus a close review of them is suggested.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephan Willett whose telephone number is (703) 308-5230. The examiner can normally be reached Monday through Friday from 8:00 AM to 6:00 PM.

18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia, can be reached on (703) 305-4003. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

19. Any inquiry of a general nature or relating to the status of this application or proceeding

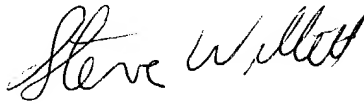
Application/Control Number: 09/892,017

Page 9

Art Unit: 2141

should be directed to the receptionist whose telephone number is (703) 305-9605.

Stephan Willett

A handwritten signature in cursive script that reads "Steve Willett". The signature is written in dark ink and is positioned to the right of the printed name "Stephan Willett".

Patent Examiner

May 7, 2004